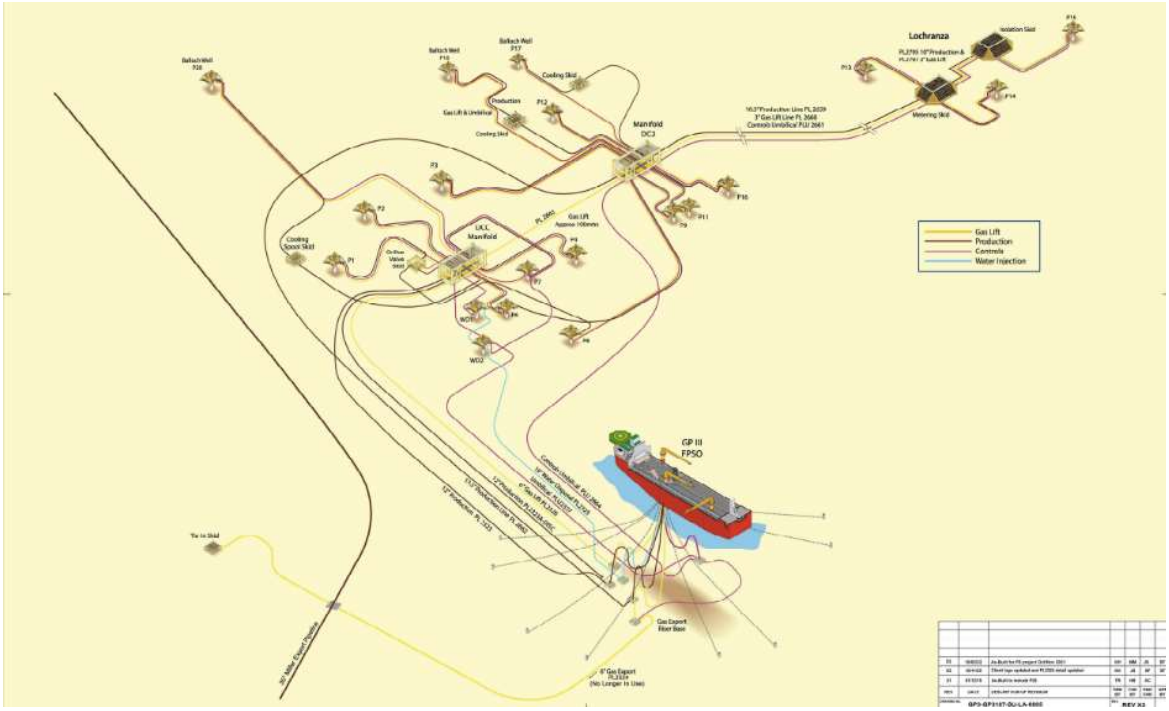
GPIII FPSO Sailaway & Disconnection of Risers and Pipelines

Decommissioning Programmes



Revision:	Issue Description:	Issue Date:	Prepared:	Checked:	Approved:
B1	For review	11/08/2023	Lisa Zardoni	Andy Kerr	
B2	For review	22/04/2024	Lisa Zardoni	Andy Kerr	Andy Barker
B3	For informal issue	30/05/2024	Lisa Zardoni	Andy Kerr	
B4	For informal issue	25/11/2024	Lisa Zardoni	Andy Kerr	
B5	Issued for comment	14/02/2025	Lisa Zardoni	Andy Kerr	Andy Barker
B6	Issued for public and statutory consultation	20/06/2025	Lisa Zardoni	Andy Kerr	Andy Barker

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11-Jun-2025 | 16:06 BST

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12-Jun-2025 | 08:31 BST

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Abbreviations

AIS	Automatic Identification System
BM	Buoyancy Module
CA	Comparative Assessment
CNS	Central North Sea
CoP	Cessation of Production
DC2	Drill Centre 2
DCC	Drill Centre Central
DP	Decommissioning Programme
DP2	Donan, Balloch and Lochranza Fields Decommissioning Programme
EA	Environmental Appraisal
EEA	European Economic Area
EPS	European Protected Species
EU	European Union
FPSO	Floating, Production, Storage and Offloading (facility)
GPIII	Global Producer III
HSEx	Health and Safety Executive
ICES	International Council for the Exploration of the Sea
IHM	Inventory of Hazardous Materials
IMO	International Maritime Organization
INTOG	Innovation and Targeted Oil and Gas
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
km	Kilometres
LSA	Low Specific Activity
LTM	Long Term Mooring
MAT	Master Application Template
MDAC	Methane Derived Authigenic Carbonate
MoD	Ministry of Defence
MPA	Marine Protected Area
NEO	NEO Energy Production UK Limited
NFFO	National Federation of Fishermen's Organisations
NIFPO	Northern Ireland Fish Producers' Organisation
NLB	Northern Lighthouse Board
NORM	Naturally Occurring Radioactive Materials
NSTA	North Sea Transition Authority
OCR	Offshore Chemicals Regulations
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning
OSPAR	Convention on the Protection of the Marine Environment of the North East Atlantic
P&A	Plug & Abandonment
PL	Pipeline
PLANC	Permits, Licenses, Authorisations, Notifications and Consents
PMF	Priority Marine Features

PWA	Pipeline Works Authorization
RB	Riser Base
SAC	Special Area of Conservation
SAT	Subsidiary Application Template
SCAP	Supply Chain Action Plan
SDU	Subsea Distribution Unit
SEPA	Scottish Environmental Protection Agency
SFF	Scottish Fisherman Federation
Te	Tonnes
TFSW	Transfrontier Shipment of Waste
UKCS	United Kingdom Continental Shelf
UKHO	UK Hydrographic Office
WD	Water Disposal

1 Executive Summary

1.1 Combined Decommissioning Programmes

This document contains two decommissioning programmes (DPs) for each set of section 29 Notices covering NEO Energy Production UK Limited (NEO) owned floating production storage and offloading (FPSO) vessel, the disconnection and recovery of flexible risers and dynamic umbilical and the partial recovery of mooring chains. After the economic life of the Donan, Balloch and Lochranza fields is reached, this DP submission enables the FPSO to be towed from location, for recycle or reuse following flushing of the subsea systems, as no further use of the installation during execution of the Donan, Balloch and Lochranza Fields Decommissioning Programme (DP2) is foreseen.

The items included in the combined Global Producer III (GPIII) FPSO DPs are (see Figure 1-2 as annotated):

1. Donan Section 29 Notice – Offshore Installations
   - Floating production storage and offloading vessel, including partial recovery of mooring chains.

2. Donan Section 29 Notice – Submarine Pipelines
   - PL2323 (PWA 18/V/25 Ident. 10, 11 and 12) – DCC Production Riser
   - PL2662 (PWA 18/V/25 Ident. 7, 8 and 9) – DC2 Production Riser
   - PL2324 (PWA 18/V/25 Ident. 1, 2 and 3) - Gas Export Riser
   - PL2325 (PWA 18/V/25 Ident. 1, 2 and 3) – Water Disposal Riser
   - PL2326 (PWA 18/V/25 Ident. 1, 2 and 3) – Gas Lift Riser
   - PLU2327 (PWA 18/V/25 Ident. 1 and 2) - Umbilical Riser

The remaining Donan, Balloch and Lochranza field infrastructures will be subject to a separate combined DP (expected approval by 2027) and will be submitted separately to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED). As the decommissioning of the subsea infrastructures and wells is currently planned for execution between 2027 – 2030, these will remain available for potential reuse, following FPSO sailaway, although the current assessment has not identified any redevelopment opportunity.

The flexible risers, umbilical riser, and part of the mooring chains will be disconnected and recovered as part of the decommissioning scope of this DP. If changes to the base case are envisaged OPRED will be kept informed, and the DP updated accordingly, and necessary supporting information provided.

The removal of the infrastructure identified within this programme shall be performed in such a way as to not prejudice any further decommissioning work in the fields.

1.2 Requirement for Decommissioning Programmes

1.2.1 Installations

In accordance with the Petroleum Act 1998, the Section 29 holders of the Donan field (see Table 1-2) are applying to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) to obtain approval for decommissioning the installations detailed in Section 2.1 and 2.2 of this programme (See also Section 8 - Section 29 Notice Holder Letter(s) of Support).

1.2.2 Pipelines

In accordance with the Petroleum Act 1998, the Section 29 holders of the Donan pipelines (see Table 1-4), are applying to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) to obtain approval for decommissioning the pipelines detailed in Section 2.3 of this programme (See also Section 8 - Section 29 Notice Holder Letter(s) of Support).

In conjunction with Public, Stakeholder and Regulatory consultation, the Decommissioning Programmes are submitted in compliance with national and international regulations and OPRED guidelines. The schedule outlined in this document is for a 5 year - decommissioning project plan due to begin in 2025.

1.3 Introduction

The Global Producer III (GPIII) Floating Production, Storage and Offloading (FPSO) facility lies 222km (138 miles) North-east of Aberdeen in approximately 145m (475ft) water depth. The GPIII is connected to three subsea well clusters located in blocks 15/20a and 15/20b of the United Kingdom Continental Shelf (UKCS) and produces from the Donan, Balloch and Lochranza fields. The Donan field was brought online in 2007, Lochranza in 2010 followed by Balloch in 2013.

The GPIII FPSO is an integrated floating installation, which supports the production, offloading and utility systems required to manage the well production and handle the well fluids. Donan consists of 10 subsea production wells producing via two manifolds, DCC and DC2. Two water disposal wells are connected to the FPSO via the water disposal riser base. Balloch consists of three subsea wells, each one with associated cooling skid. Two wells are tied back to the DC2 and one well to DCC. Produced fluids are sent back to the GPIII FPSO via dedicated DCC and DC2 production flowlines, riser bases and risers. Gas lift and chemicals/controls are provided from the GPIII FPSO to DCC and DC2 via a gas lift and an umbilical riser, riser base and flowline. Lochranza consists of four subsea wells, an isolation skid, and a metering skid with one of the wells, P16, tied-back directly into DC2. The metering skid and DC2 manifold are connected via a production line, gas lift line and a controls umbilical. A 10.5 km long gas export/import pipeline connects the gas export riser base to the MacCulloch FPSO tie-in skid, and crosses over the bp Miller export pipeline. As the MacCulloch field is being decommissioned and the MacCulloch FPSO removed from station, this infrastructure is no longer in operation. Figure 1-2 shows the layout schematic of the facilities.

Following Cessation of Production (expected not earlier than end of Q1 2026) and after completion of the decommissioning activities detailed in Section 1.1, the FPSO is not required to perform any further decommissioning related activities on the subsea infrastructure and it is proposed that the vessel is removed thereafter from its current location.

Following public, stakeholders and regulatory consultation, this combined DP is submitted without derogation and in full compliance with OPRED guidelines.

It should be noted that an Environmental Appraisal (EA) shall support the combined DP for the remaining subsea infrastructure following FPSO sailaway (DP2). Environmental impacts associated with the work in this DP have been assessed and detailed in Section 4 of this document.

1.4 Overview of Installations/Pipelines Being Decommissioned

1.4.1 Installations

Table 1-1 – Installations Being Decommissioned			
Field	Donan	**Production Type**	Oil
Water Depth (m)	145	**UKCS Block**	15/20a, 15/20b
Distance to median (km)	37	**Distance from nearest UK coastline (km)**	182
Surface Installation			
Number	Type	Weight (Te)	
1	FPSO	30,870	
Mooring Chains (Partial Recovery) [Note 1]			
10	Full length 1100 m (each) Recovered Chain Length in DP1 ~ 280m to 320m (each)	747	

[NOTE 1] The mooring chains will be disconnected at a suitable location, dependent on the individual line configuration, and the sections of chain from the FPSO to the disconnection point will be recovered to shore as part of this DP. It is expected that disconnection points will be as close as possible to the mooring touchdown, with an estimated 280m to 320m chain recovered for each mooring chain, however the exact disconnection points will be determined during detailed design. Any section of mooring chain from the disconnection point to touch down will be lowered onto the seabed.
Decommissioning of remaining mooring chains and drag anchors will be assessed as part of DP2 which will be separately submitted.

Table 1-2 – Installations Section 29 Notice Holders Details		
Section 29 Notice Holder	**Registration Number**	**Equity Interest (%)**
NEO ENERGY GROUP LIMITED	SC470677	0
NEO ENERGY PRODUCTION UK LIMITED	12086835	100
NEO ENERGY UPSTREAM UK LIMITED	SC279865	0
NOBLE ENERGY (OILEX) LIMITED	00797339	0
TOTALENERGIES E&P NORTH SEA UK LIMITED	03682299	0
TOTALENERGIES OFFSHORE UK LIMITED	00946986	0

1.4.2 Pipelines

Table 1-3 – Pipelines Being Decommissioned	
Number and total length (m) of pipelines / umbilical. Full details given in Table 2-5	5 Flexible Risers and 1 Umbilical Riser from the FPSO to the riser bases –1.76 km total length.

Table 1-4 – Pipelines Section 29 Notice Holders Details		
Section 29 Notice Holders	**Registration Number**	**Equity Interest (%)**
NEO ENERGY GROUP LIMITED	SC470677	0
NEO ENERGY PRODUCTION UK LIMITED	12086835	100
NEO ENERGY UPSTREAM UK LIMITED	SC279865	0
NOBLE ENERGY (OILEX) LIMITED	00797339	0
TOTALENERGIES E&P NORTH SEA UK LIMITED	03682299	0
TOTALENERGIES OFFSHORE UK LIMITED	00946986	0

1.5 Summary of Proposed Decommissioning Programmes

Table 1-5 –Summary of Decommissioning Programme(s)	
Proposed Decommissioning Solution	**Reason for Selection**
1. Surface Installation (FPSO)	
Full Removal - Following flushing and cleaning of pipelines and vessel, the FPSO will be disconnected from its risers and mooring system and towed to a redeployment location or to shore. Potential reuse options for the FPSO are under evaluation. If a reuse option is identified OPRED will be advised as part of the post decommissioning approval process. In the event that redeployment opportunities are not available, the FPSO will be recycled at an approved shipyard in compliance with, as applicable, all relevant UK (including any retained EU Ship recycling regulations), EU, or EEA ship recycling laws and regulations. Any applications and permits required for work associated with removal of the vessel will be submitted.	Complies with OSPAR requirements and the FPSO is not needed for future decommissioning activities and will be removed from station
2. Mooring System	
Partial Removal – Sections of mooring chains will be recovered for reuse or recycling. The mooring chains will be disconnected at a suitable location dependent on the individual line configuration, and the sections from the FPSO to the disconnection points will be recovered to shore. Sections of mooring chain between disconnection point and seabed touch down will be lowered onto the seabed. The sections of mooring chain not recovered as part of this DP, including the ground chains and drag anchors, will remain in situ and their decommissioning will be assessed as part of DP2 separately submitted. Measures will remain in place after the FPSO sailaway to mitigate the hazards for other user of the sea (ref. Section 6.2). OPRED will be notified once the mooring chains disconnection points are established.	To satisfy the regulatory requirements and minimise seabed disturbance.
3. Risers & Umbilical	
Full Removal - The flexible risers and dynamic umbilical will be flushed, disconnected, and recovered by vessel for transport ashore for reuse, recycling, or disposal. The riser's buoyancy modules will be recovered with the risers and transported ashore for reuse, recycling, or disposal.	To satisfy the regulatory requirements.

4. Interdependencies
As the FPSO sailaway will occur prior to the well P&A activities, well integrity testing will be conducted prior to disconnection of the FPSO (ref. section 6.6 for wells details) An appropriate well monitoring regime, between the time of sailaway to completion of the wells plug and abandonment (P&A), will be agreed with the Health and Safety Executive (HSEx) and OPRED Offshore Inspectorate. It is acknowledged that appropriate safety measures to ensure no threat to other users of the sea will require to be agreed and deployed at the relevant time following sail away of the FPSO. NEO will ensure that Admiralty Charts and Notices to Mariners are updated, and engagement is maintained with OPRED, the Health and Safety Executive (HSEx) and Northern Lighthouse Board (NLB) to ensure appropriate mitigation measures are agreed and put in place (ref. section 6.6 for more details). It is anticipated that no impact on third party assets or pipelines will result from the activities of this decommissioning programme.

1.6 Field Location Including Field Layout and Adjacent Facilities

The location of the Donan, Balloch and Lochranza fields within the UKCS is shown in Figure 1-1 . The facilities layout is shown in more detail in Figure 1-2.

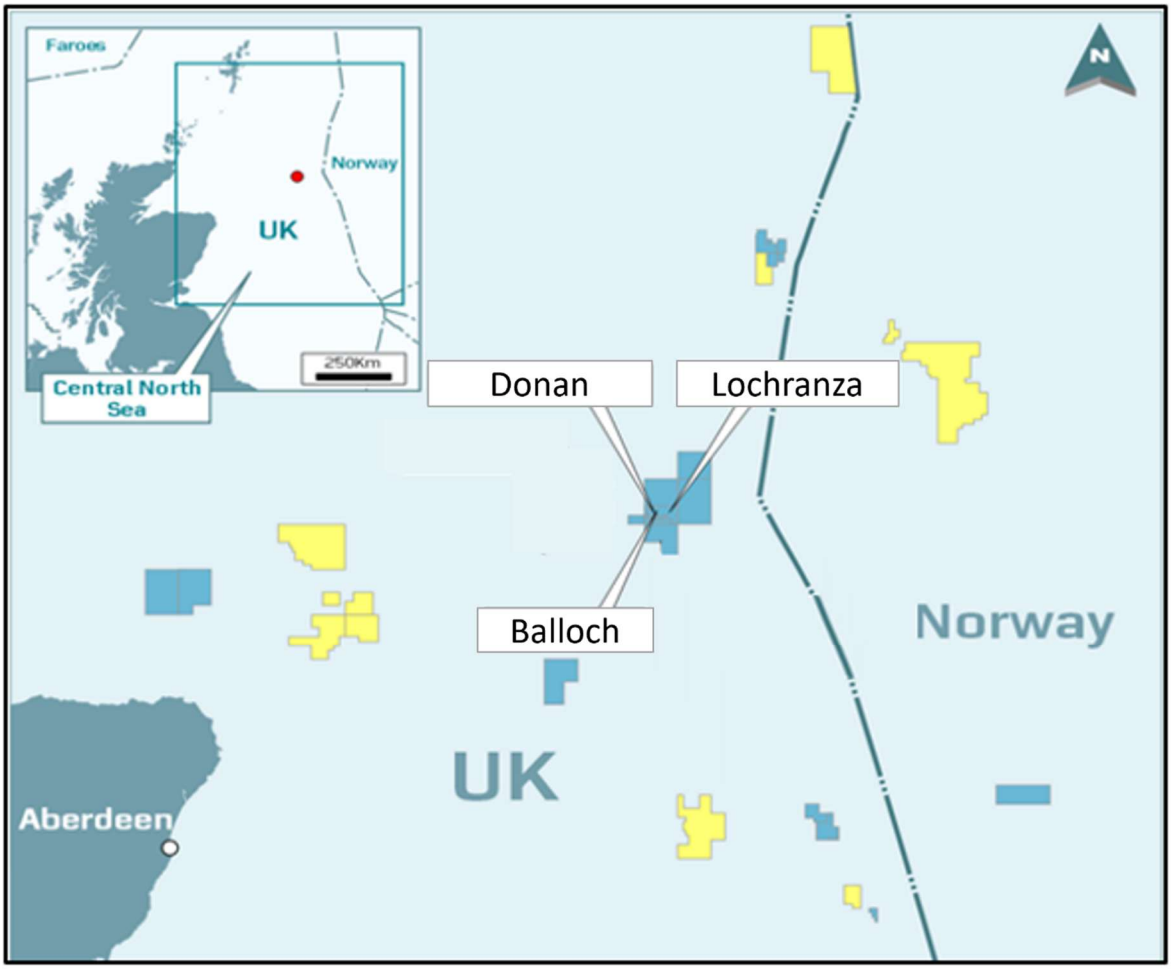

Figure 1-1 Field Location

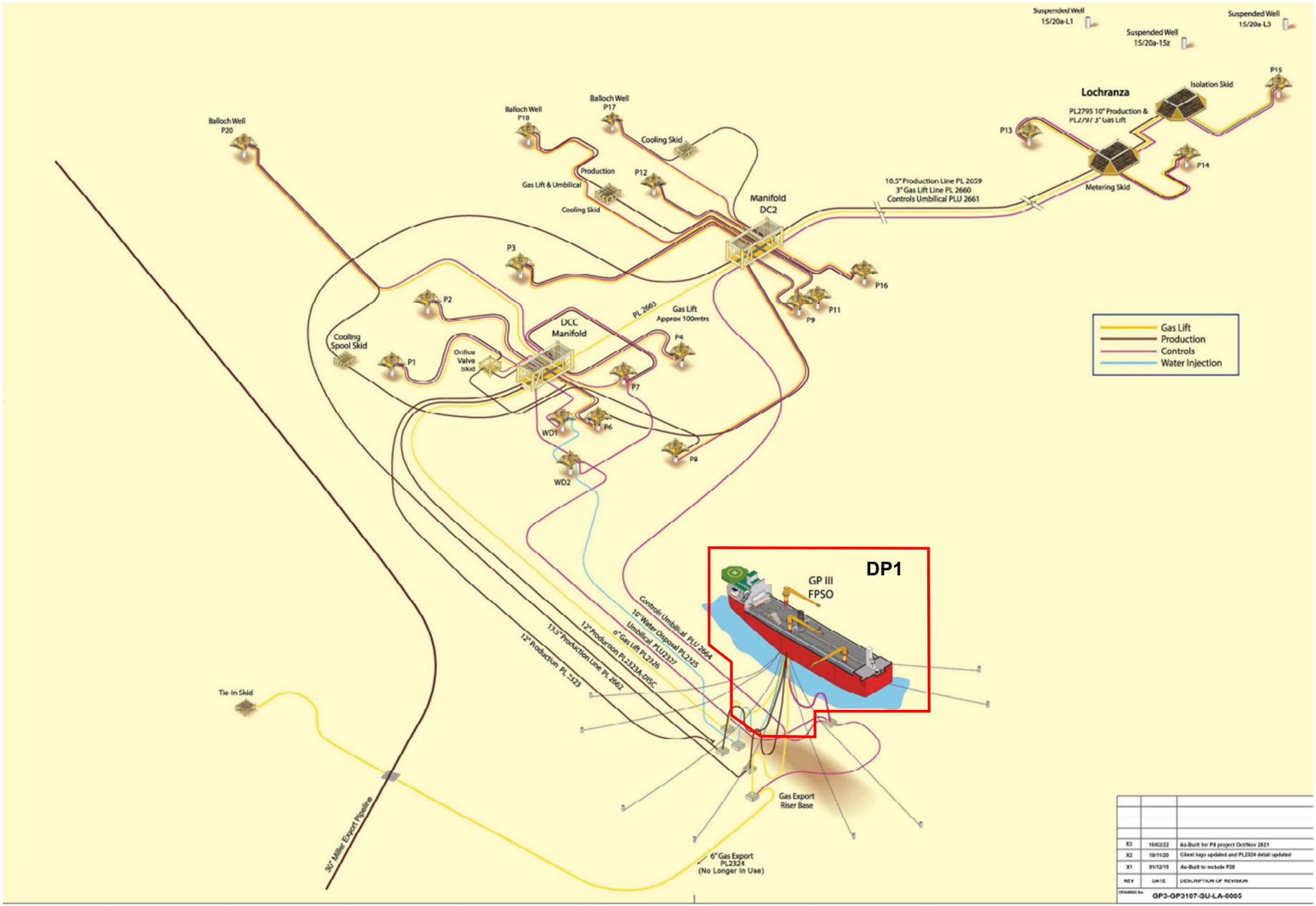

Table 1-6 Adjacent Facilities					
Owner	**Name**	**Type**	**Distance / Direction**	**Information**	**Status**
NEO Energy Production UK Limited	Donan	Infrastructures	North-East of GPIII 500m zone	▪ 13 x XT with integral WHPS ▪ 2 x Manifolds (DCC and DC2) ▪ 6 x Riser Bases ▪ 4 x Skids ▪ 1 x Subsea Distribution Unit (SDU) ▪ 5 x Pipelines (PL2323, PL2662, PL2323A (disconnected), PL2326, PL2325) ▪ 2 x Umbilicals (PLU2327, PLU2664)	Operating
NEO Energy Production UK Limited	Balloch	Infrastructures	North-East of GPIII 500m zone	▪ 3 x XT with integral WHPS ▪ 3 x Skids	Operating
NEO Energy Production UK Limited	Lochranza	Infrastructures	North-East of GPIII 500m zone	▪ 3 x XT with integral WHPS ▪ 2 x Skids ▪ 2 x Pipelines (PL2659, PL2660) ▪ 1 x Umbilical (PLU2661)	Operating
NEO Energy Production UK Limited	Gas Export Line to MacCulloch	6 in. Gas Export Pipeline	South - West from GPIII	PL2324	Not in use
BP Exploration Operating Company Ltd.	PL720	30in Gas Export Pipeline (Miller to St. Fergus)	South- West from Miller Platform to St Fergus	Gas Export Line (PL2324) crosses the BP Miller Pipeline	Not in use
Impacts of Decommissioning Proposal					
NEO owned Donan, Balloch and Lochranza fields CoP will coincide with the GPIII FPSO CoP. There is no direct impact on adjacent third-party facilities resulting from the activities listed in this DP.					

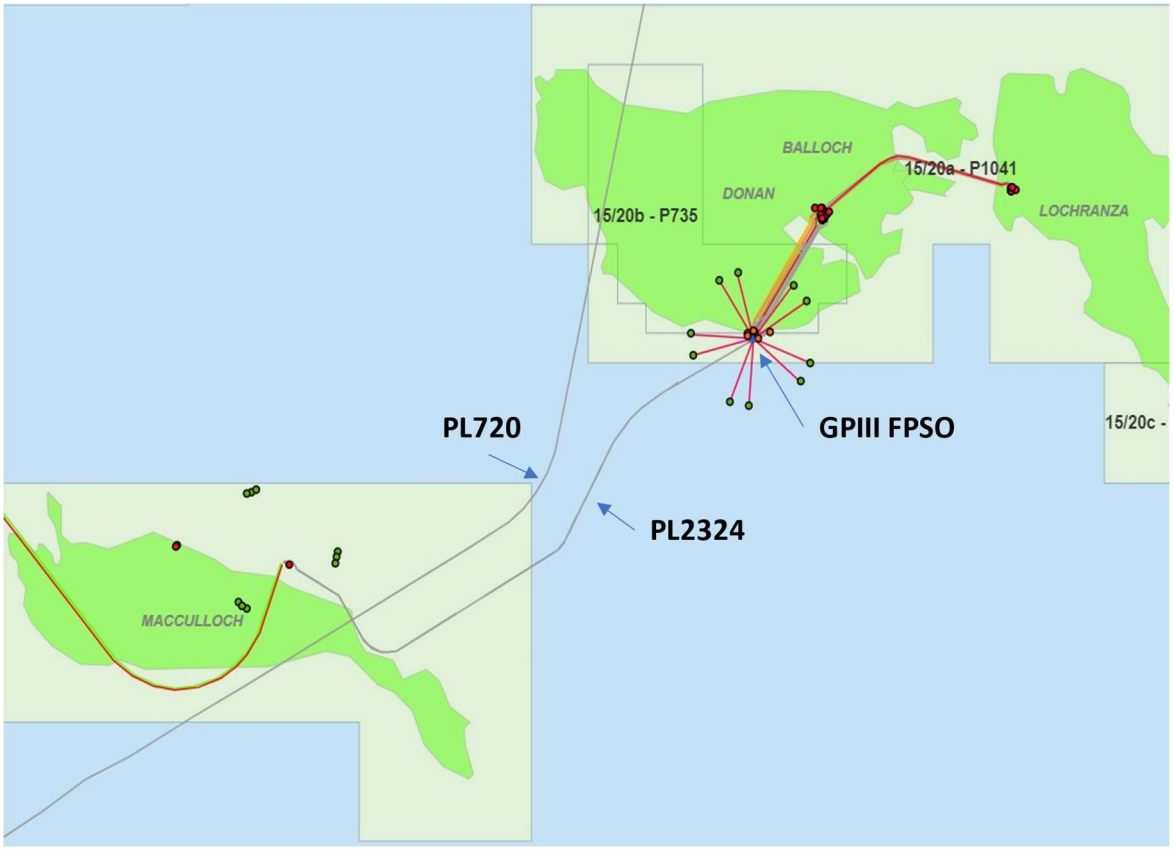

Figure 1-3 Adjacent Facilities

1.7 Industrial Implications

NEO's intention is to develop a contracting strategy aiming to the efficient and cost-effective execution of the decommissioning activities covered by this DP.

The decommissioning scope and estimated timeline will be published on the North Sea Transition Authority (NSTA) Pathfinder to alert potential contractors of competitive tender opportunities while existing framework agreements may be used where appropriate.

Opportunities for collaborations and scopes aggregations will be explored, primarily aiming to reduce vessels mobilisation costs but extended to other activities if applicable.

NEO will work with the NSTA Decommissioning & Supply Chain teams to develop a Supply Chain Action Plan (SCAP) and will engage with the contractors to identify effective solutions which enhance project delivery.

Recovered items from the field will be transported to a designated shore base and received by an approved licenced materials/ waste management contractor for onward reuse, recycling, or disposal.

2 Description of Items to be Decommissioned

2.1 Installations: Floating Facilities (FPSO)

Table 2-1 – Floating Facilities Information				
Name	Facility Type	Location		Floating Facilities Weight (Te)
GPIII	FPSO	WGS84 Decimal	58.353467° 0.864239°	30,870
		WGS84 Decimal Minute	58° 21.208 N 0° 51.854 E	

2.2 Installations: Subsea including Stabilisation Features

Table 2-2 – Donan Subsea Installations and Stabilisation Features					
Subsea Installations including Stabilisation Features	Number	Size/Weight (Te)	Location		Comments / Status
Mooring Chains	10	**Length approx. 1100m (each) Weight in air – 2550 Te (total)**	From each anchor location - approx. 1100 m of 108 mm studless chain to GPIII FPSO.		Partial removal of the mooring chain from FPSO to a suitable disconnection point (estimated ~320m for each mooring chain, pending outcome of engineering studies) Tonnage removed is approx. 747Te
Buoyancy Modules (BMs)	30	**12" Production Riser (DCC) BMs Type 1** 1.6m x 1.8m 21.15Te	WGS84 Decimal	58.354531° 0.864350°	
			WGS84 Decimal Minute	58° 21.272 N 0° 51.861 E	
	27	**12" Production Riser (DC2) BMs Type 1** 1.3m x 1.6m 19.18Te	WGS84 Decimal	58.354175° 0.862719°	
			WGS84 Decimal Minute	58° 21.251 N 0° 51.763 E	

Table 2-2 – Donan Subsea Installations and Stabilisation Features					
	9	**6" Gas Lift Riser BMs Type 1** 1.3m x 1.2m 4.97Te	WGS84 Decimal	58.353436° 0.865797°	
			WGS84 Decimal Minute	58° 21.206 N 0° 51.948 E	
	20	**6" Gas Lift Riser BMs Type 2** 0.9m x 1.1m 6.24Te	WGS84 Decimal	58.353436° 0.865797°	
			WGS84 Decimal Minute	58° 21.206 N 0° 51.948 E	
	9	**6" Gas Export Riser BMs Type 1** 1.3m x 1.2m 4.97Te	WGS84 Decimal	58.353764° 0.862789°	
			WGS84 Decimal Minute	58° 21.226 N 0° 51.767 E	
	20	**6" Gas Export Riser BMs Type 2** 0.9m x 1.1m 6.24Te	WGS84 Decimal	58.353764° 0.862789°	
			WGS84 Decimal Minute	58° 21.226 N 0° 51.767 E	
	14	**Umbilical Riser BMs Type 1** 1.3m x 1.6m 12.27Te	WGS84 Decimal	58.354369° 0.869075°	
			WGS84 Decimal Minute	58° 21.262 N 0° 51.145 E	
	12	**Water Injection Riser BMs Type 1** 1.3m x 1.6m 8.96Te	WGS84 Decimal	58.354231° 0.864803°	
			WGS84 Decimal Minute	58° 21.254 N 0° 51.888 E	
	20	**Water Injection Riser BMs Type 2** 1.1m x 1.4m 8.90Te	WGS84 Decimal	58.354231° 0.864803°	
			WGS84 Decimal Minute	58° 21.254 N 0° 51.888 E	

2.3 Pipelines Including Stabilisation Features

Table 2-3 – Donan Pipelines Information

Description	Pipeline Number and Ident. (as per PWA 18/V/25)	Diameter (inches)	Length (m)	Description of Component Parts	Product Conveyed	From – To End Points	Burial Status	Pipelines Status	Current Content
12" DCC Production Riser	PL2323 [Ident. 10]	12	280.0	Flexible	Production Fluids	DCC Production RB to GPIII FPSO Riser Tie-in Flange	Surface Laid	In use	Oil, Water, Gas
16” Topside Rigid Pipework	PL2323 [Ident. 11]	16	10	Steel	Production Fluids	Riser Tie-in flange to 16” ESDV	Surface Laid	In use	Oil, Water, Gas
16” ESDV	PL2323 [Ident. 12]	16	N/A	ESDV	Production Fluids	16” ESDV	Surface Laid	In use	Oil, Water, Gas
12" DC2 Production Riser	PL2662 [Ident. 7]	12	205.0	Flexible	Oil / Gas / Water	DC2 Production RB to GPIII FPSO Riser Tie-in Flange	Surface Laid	In use	Oil, Water, Gas
12” Topside Rigid Pipework	PL2662 [Ident. 8]	12	7.2	Steel	Oil / Gas / Water	Riser Tie-in flange to 12” ESDV	Surface Laid	In use	Oil, Water, Gas

Table 2-3 – Donan Pipelines Information									
12” ESDV	PL2662 [Ident. 9]	12	N/A	ESDV	Oil / Gas / Water	12” ESDV	Surface Laid	In use	Oil, Water, Gas
Umbilical Riser	PLU2327 [Ident. 2]	12	431.0	Umbilical	Chemicals/Controls	Umbilical RB to GPIII Umbilical Termination Unit	Surface Laid	In use	Chemicals/Controls
Topside Umbilical Termination Unit	PLU2327 [Ident. 1]	N/A	N/A	Topside Umbilical Termination Unit	Chemicals/Controls	Topside Umbilical Termination Unit	Surface Laid	In use	Chemicals/Controls
6" Gas Lift Riser	PL2326 [Ident. 3]	6	280.0	Flexible	Gas Lift	Gas Lift RB to GPIII FPSO Riser Tie-in Flange	Surface Laid	In use	Gas Lift
6” Topside Pipework	PL2326 [Ident. 2]	6	4	Steel	Gas Lift	Riser Tie-in Flange to 6” ESDV	Surface Laid	In use	Gas Lift
6” ESDV	PL2326 [Ident. 1]	6	N/A	ESDV	Gas Lift	6” ESDV	Surface Laid	In use	Gas Lift
6" Gas Export Riser	PL2324 [Ident. 3]	6	247.0	Flexible	Gas	Gas Export RB To GPIII FPSO	Surface Laid	Out of use	Seawater / Nitrogen
6” Topside Rigid Pipework	PL2324 [Ident. 2]	6	3.4	Steel	Gas	Riser Tie-in flange to 6” ESDV	Surface Laid	Out of Use	Seawater / Nitrogen

Table 2-3 – Donan Pipelines Information									
6” ESDV	PL2324 [Ident. 1]	6	N/A	ESDV	Gas	6” ESDV	Surface Laid	Out of Use	Nitrogen
10" Water Disposal Riser	PL2325 [Ident. 3]	10	280.0	Flexible	Produced Water	Water Disposal RB to GPIII FPSO Riser Tie-in Flange	Surface Laid	In use	Produced Water
16” Topside Rigid Pipework	PL2325 [Ident. 2]	16	7	Steel	Produced Water	Riser Tie-in Flange to 16” ESDV	Surface Laid	In use	Produced Water
16” ESDV	PL2325 [Ident. 1]	16	N/A	ESDV	Produced Water	16” ESDV	Surface Laid	In use	Produced Water

2.4 Inventory Estimates

Figure 2-1 shows the material inventory for the scope of this DP, which includes GPIII FPSO, part of mooring system, dynamic risers & umbilicals and associated buoyancy modules.

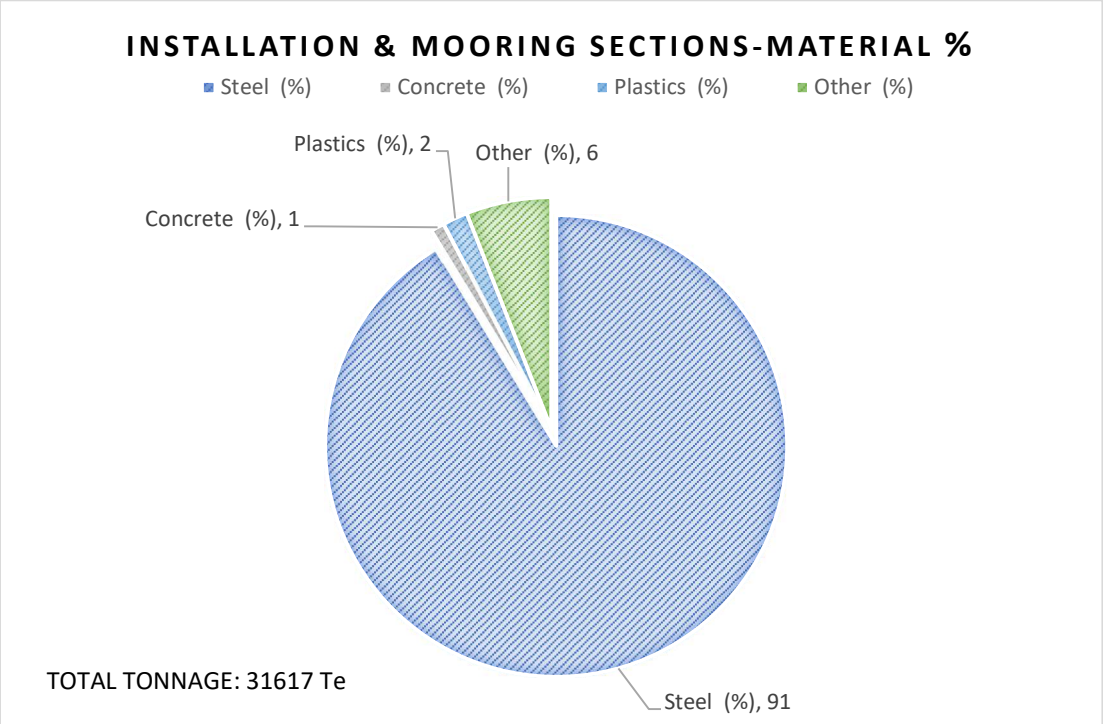

Figure 2-1 Estimated Material Inventory – Installation and Mooring Materials (%)

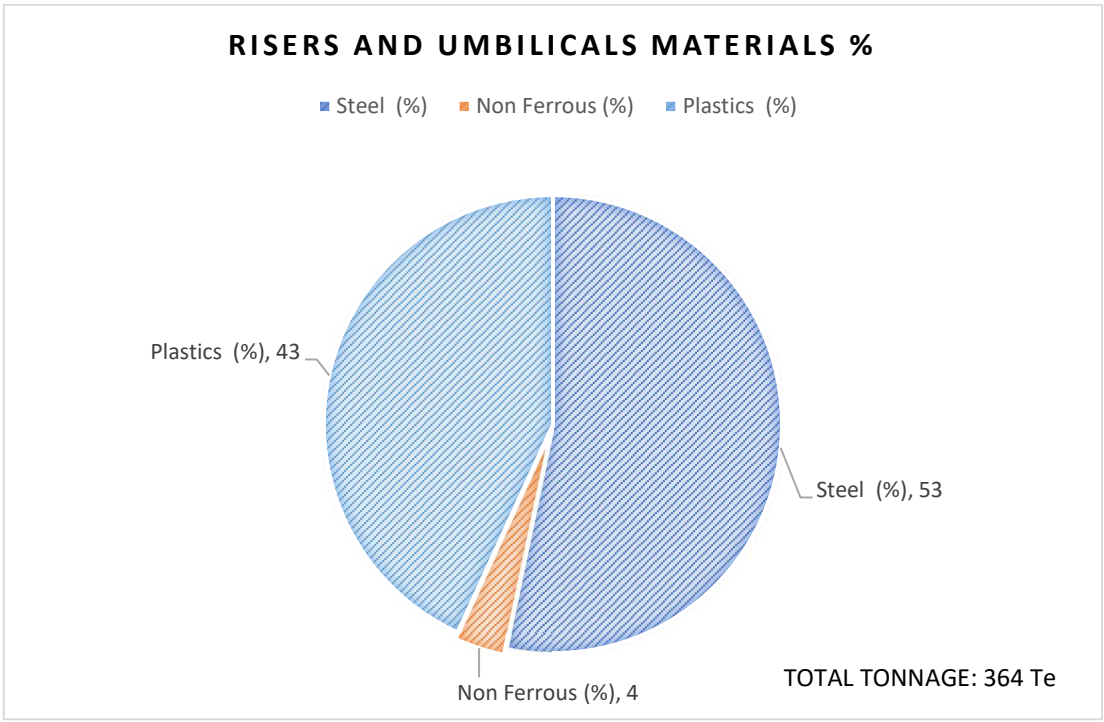

Figure 2-2 Estimated Material Inventory – Risers and Umbilical Materials (%)

3 Removal and Disposal Methods

Following the waste hierarchy shown in Figure 3-1 below, NEO works on the principle of adopting waste disposal only where reuse, recycling and recovery are not viable options.

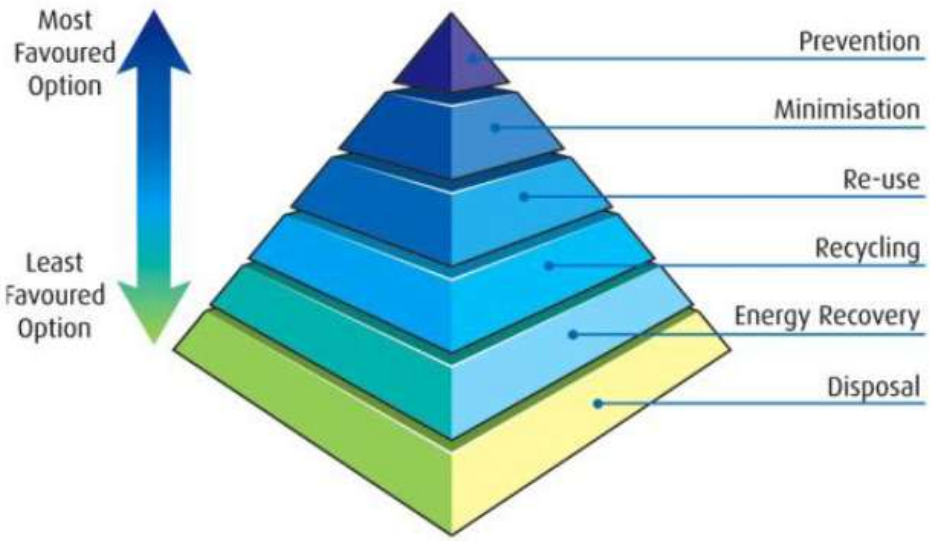

Figure 3-1 Waste Management Hierarchy

In line with the waste hierarchy, NEO are investigating potential reuse options for the GPIII FPSO, flexible risers and dynamic umbilical.

Where no reuse options exist, recovered infrastructure will be returned to shore and transferred to a suitably licensed waste treatment facility. An appropriately licensed disposal company and yard will be identified through a selection process that will ensure that the chosen facility demonstrates a proven track record of waste stream management throughout the deconstruction process, the ability to deliver innovative reuse / recycling options, and ensure the aims of the waste hierarchy are achieved.

Geographic locations of potential disposal yard options may require the consideration of Trans Frontier Shipment of Waste (TFSW), including hazardous materials. Early engagement with the regulatory authorities will ensure that any issues with TFSW are addressed.

Once an appropriately licensed waste contractor has been selected OPRED and SEPA will be informed.

3.1 Floating Facilities

3.1.1 FPSO Decommissioning Overview

After cessation of production at its current location, the GPIII FPSO will be removed from the field and either redeployed or towed to a suitable licensed location for preparation for re-use or recycling.

In case of re-use or redeployment, NEO will be responsible for taking reasonable measures to assure itself that proposals to re-use the vessel will be credible, and that any future disposal of the FPSO will comply with the IMO Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships.

In the event that redeployment opportunities are not available, the GPIII FPSO will be recycled at an approved shipyard in compliance with, as applicable, all relevant UK (including any retained EU Ship recycling regulations), EU, or EEA ship recycling laws and regulations.

Prior to FPSO risers and mooring disconnection, all hydrocarbon bearing vessels will be emptied, flushed, purged, and vented as far as reasonably practicable. Pipelines, risers and umbilical will also be flushed with all activities and waste fluids disposal carried out under the appropriate permits. Following satisfactory preparation of the FPSO, the risers and mooring chains will be disconnected and the GPIII towed off station.

Floating Facilities Description: The GPIII FPSO has a total weight of 30,870 Te and consists of three main sections. The forward section of the vessel comprises the crew accommodation, helideck, bridge / central control room, forward machinery room and forward equipment rooms. The central section includes the crude storage, ballast, mooring, turret, and production systems. The aft area contains the aft machinery rooms, aft equipment rooms, main power generation, flare/vent tower and the offloading system.

The installation rotates around its turret, which is secured to the seabed by a 10-point mooring system. Produced oil is stored in the installation’s storage tanks and discharged into shuttle tankers via the stern offloading line.

A diagram of the GPIII FPSO is shown in Figure 3-2 and a photograph of it shown in Figure 3-3.

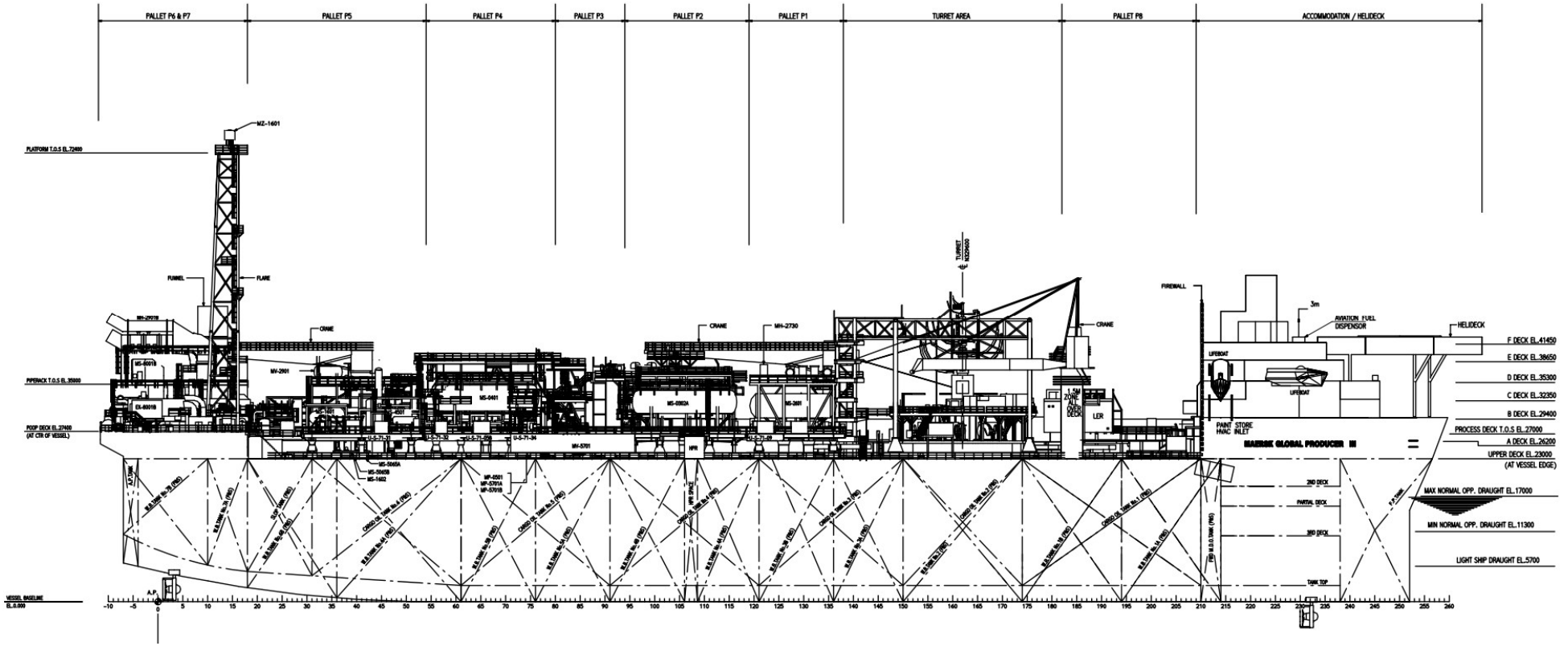

Figure 3-2 Diagram of FPSO

Figure 3-3 Photograph of GPIII FPSO

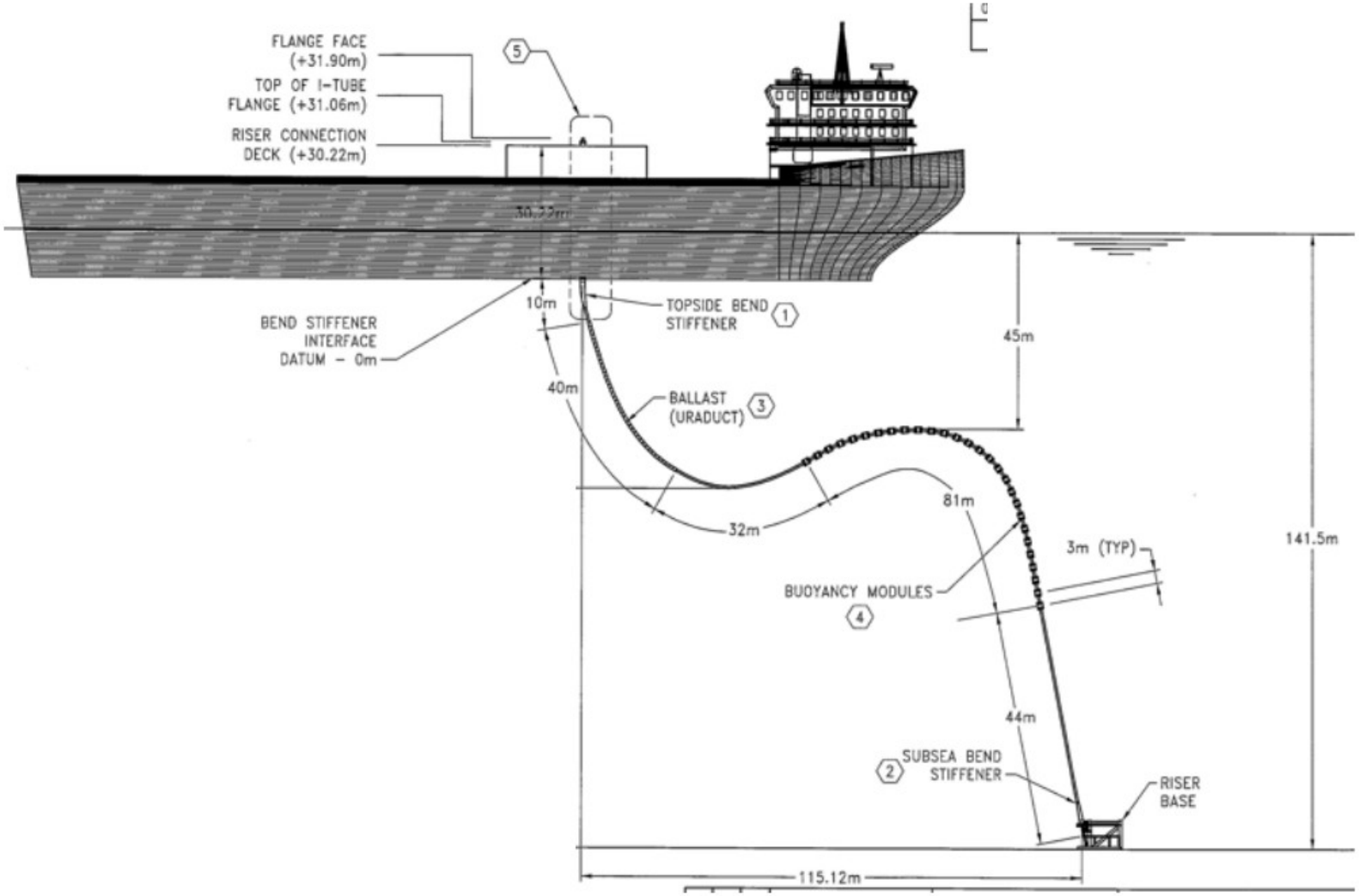

Figure 3-4 Typical Riser Arrangement

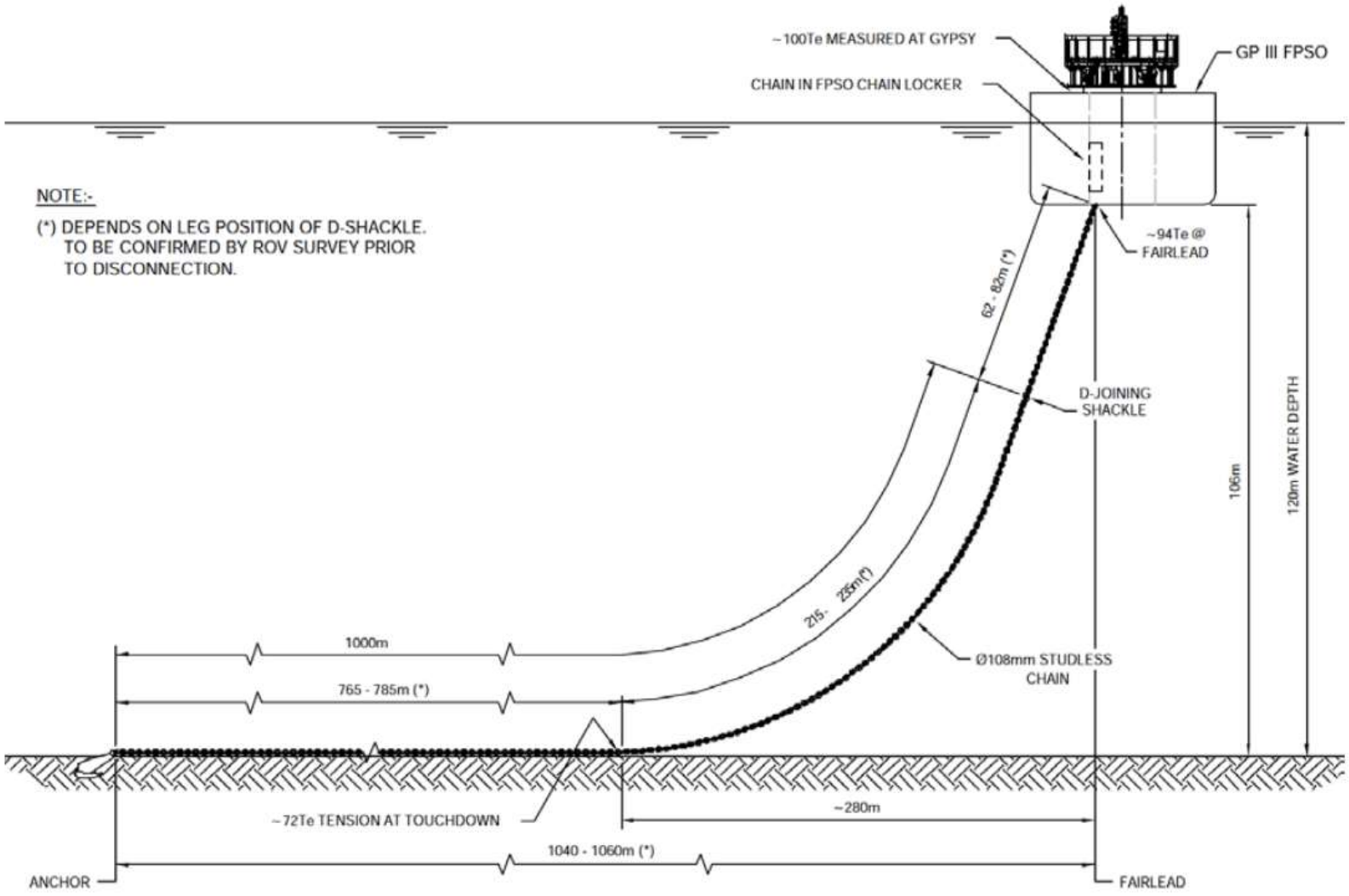

Figure 3-5 Typical Mooring Arrangement

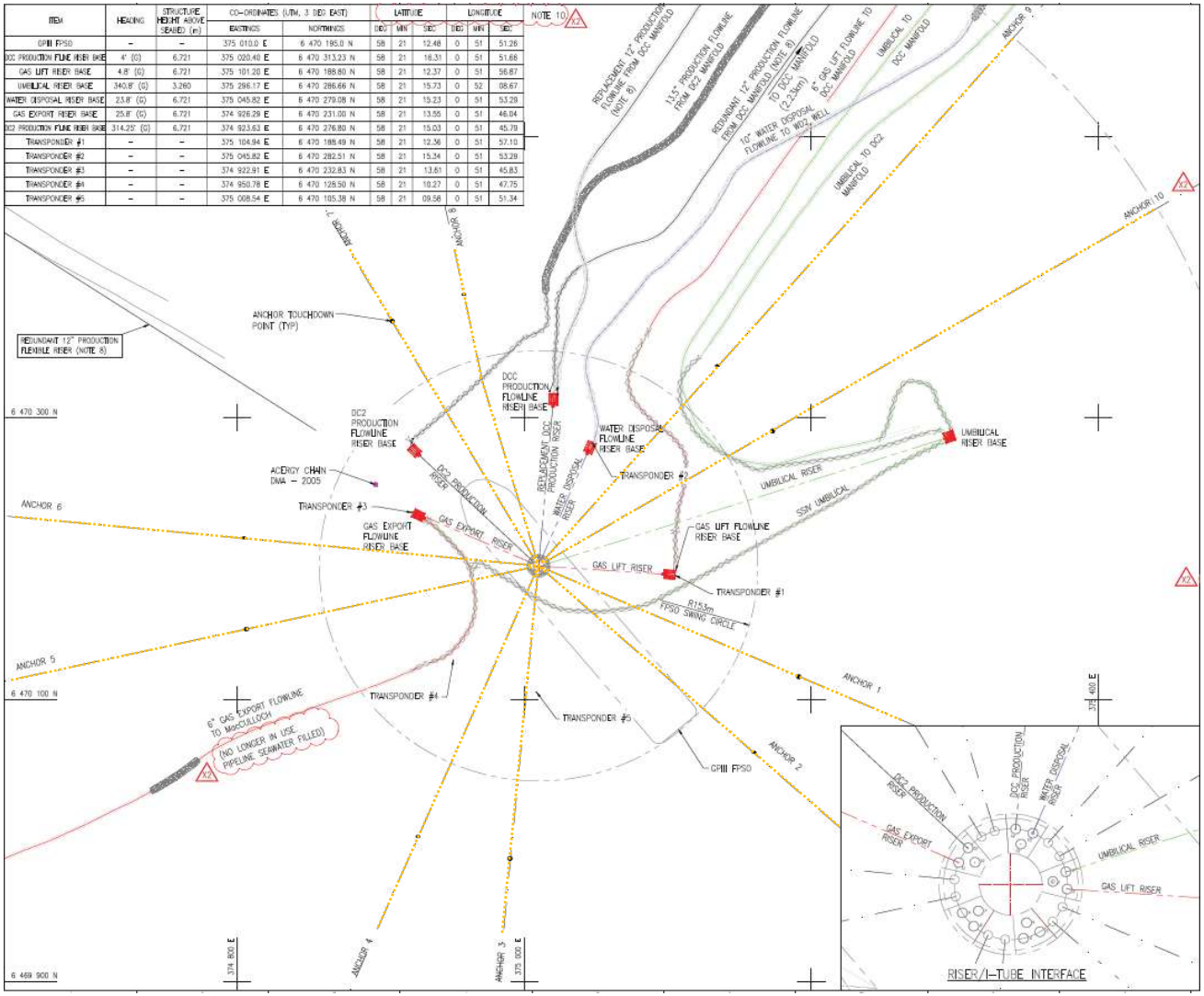

Figure 3-6 Mooring Layout

Mooring Line #	Top Chain 108mm R4 Studless [m]	LTM connector	Intermediate chain 108mm R4 Studless[m]	LTM connector	Bottom Chain 108mm R4 Studless [m]	LTM connector	Mooring Chain 108mm R4 Studless [m]	Total length (FPSO to anchor) [m]
1	454.5	-	-	H-Link	620.963	LTM D-Shackle	4.5	1080
2	453	-	-	H-Link	639.463	LTM D-Shackle	4.5	1097
3	99.7	H-Link	130.33	H-Link	855.463	LTM D-Shackle	4.5	1090
4	126	H-Link	199.33	H-Link	766.963	LTM D-Shackle	4.5	1097
5	455	-	-	H-Link	630.463	LTM D-Shackle	4.5	1090
6	95	LTM D-Shackle	-	-	991.963	LTM D-Shackle	4.5	1091
7	103	LTM D-Shackle	-	-	993.463	LTM D-Shackle	4.5	1101
8	153	-	-	H-Link	937.463	LTM D-Shackle	4.5	1095
9	111	LTM D-Shackle	-	-	988.463	LTM D-Shackle	4.5	1104
10	110	LTM D-Shackle	-	-	988.463	LTM D-Shackle	4.5	1103

Figure 3-7 Mooring Configurations Summary

3.1.2 Preparing / Cleaning:

Table 3-1 – Cleaning of Floating Facilities for Removal		
Waste Type	**Composition of Waste**	**Disposal Route**
Onboard hydrocarbons	Process fluids, fuels, and lubricants	On-board hydrocarbons will be offloaded by shuttle tanker and returned to shore. For residual hydrocarbons and flushing fluids, several options are being evaluated: • Injection into disposal well. • Processing and disposal offshore. • Transport onshore for processing and disposal. Decision on the preferred flushing option, or combination of options, will be made at completion of the detailed engineering studies.
Production chemicals	Proprietary preparations and bulk chemicals	Production chemicals stock will be reduced to minimum quantities in the period leading to CoP and any residual quantity will be transported onshore for appropriate reuse, recycling, or disposal. Equipment will be drained, flushed, and cleaned. The residual effluent will be transported onshore for appropriate reuse, recycling, or disposal. Chemical inventories in umbilicals will be flushed to pipeline and /or downhole as appropriate.
Other hazardous materials	Radioactive materials such as Naturally Occurring Radioactive Material (NORM), Low Specific Activity (LSA) Scale, instrumentation (i.e., low level radioactive sources), etc., Heavy metals, batteries, etc.	Materials will be made safe and transported onshore for re-use/disposal by an appropriately licensed facility.

3.1.3 Removal & Disposal Methods

Table 3-2 – Floating Facilities Removal and Disposal Method	
Method	**Description**
Disconnect and redeploy or tow to shore for reuse	The GPIII FPSO will be released from its moorings with all risers flushed, cleaned, and disconnected. The FPSO will then be redeployed or towed to a suitable licensed location for preparation for re-use.
Disconnect and tow to shore for recycle	The GPIII FPSO will be released from its moorings with all risers flushed, cleaned, and disconnected. The FPSO will then be towed directly to suitable onshore facilities for recycling.
Proposed removal method and disposal route	Flushing and cleaning operations will take place to ensure that subsea systems and topsides are depressurized and cleaned. The subsea systems will be appropriately isolated prior to FPSO departure. The subsea trees will be barrier tested and the gas lift / production jumpers disconnected. Blind flanges will be installed on the trees prior to riser disconnection and FPSO sailaway. Flushed manifolds and associated production and gas lift flowlines and jumpers will be dosed with preservation chemicals during flushing and will have environmental blinds/plugs fitted to protect integrity for future recovery. Flexible risers and dynamic umbilical will be disconnected and recovered following FPSO sailaway. The mooring chains will be disconnected at suitable locations (expected to be near seabed touchdown) and the sections of chain from the FPSO to the disconnection points will be recovered with the FPSO. It is acknowledged that appropriate safety measures, to ensure no threat to other users of the sea, will require to be agreed and deployed at the relevant time following sail away of the FPSO (refer to section 6.6). The FPSO will be either redeployed, towed to port for further cleaning if required and/or refurbishment before being reused, or towed to a licensed facility to be recycled. OPRED and NSTA will be advised when any decisions regarding reuse are made. Depending on the yard location, if required transfrontier shipments of waste permits will be in place prior to the FPSO leaving UK waters.

3.2 Mooring chains

The mooring system consists of 10 mooring chains and associated drag anchors. As part of this DP, the sections of mooring, from the FPSO to suitable disconnection points (expected near seabed touchdown), will be recovered. Sections of mooring chain between disconnection point and seabed touch down will be lowered onto the seabed. Decommissioning of the mooring chains not recovered as part of this DP, including ground chains and drag anchors, will be assessed in DP2 that will be separately submitted.

Visual survey of the mooring executed in 2024 indicates that the anchors and ground chain are 100% buried. No depressions or seabed disturbance was observed in the survey. Similar results were recorded in historical surveys indicating that the mooring burial has been stable over time and the anchors and mooring outside the 500m zone are unlikely to represent a snagging hazard. Touch down points (and start of the buried ground chains to anchors sections) are within the 500m zone, and the mitigations proposed in section 6.6 are applicable.

Table 3-3 – Mooring Chains Decommissioning Options

Subsea installation	Number	Options	Disposal Route (if applicable)
Mooring Chains	10	Partial recovery of sections from FPSO to disconnection points	Return to shore for reuse or recycling.

3.3 Pipelines, Risers, and Umbilical

The scope of this DP includes the dynamic risers and umbilical suspended in the water column between the FPSO and the riser bases. All the risers and umbilical covered by this DP will be fully removed and returned to shore for reuse, recycling or disposal.

Table 3-4 – Risers and Umbilical Decommissioning Options

Subsea installation	Number	Options	Disposal Route (if applicable)
Risers	5	Full recovery	Return to shore for reuse, recycling or disposal.
Umbilical	1	Full recovery	Return to shore for reuse, recycling or disposal.
Buoyancy Modules	161	Full recovery	Return to shore for reuse, recycling or disposal.

Comparative Assessment: A Comparative Assessment (CA) has not been carried out for the scope covered by this DP. Flexible risers and dynamic umbilicals are suspended in the water column and are planned to be fully recovered following their disconnection. The section of mooring chain covered by this DP will also be fully recovered. Although detailed engineering for their recovery has not yet been performed, the risers, umbilical and section of mooring chain will be recovered to a vessel for transport ashore.

3.4 Streams

Waste stream information is provided in Table *3-5*.

Table 3-5 – Waste Stream Management Methods	
Waste Stream	**Removal and Disposal Method**
Bulk Liquids	On-board hydrocarbons will be offloaded by shuttle tanker and returned to shore. Production chemicals stock will be reduced to minimum quantities in the period leading to CoP and any residual quantity will be transported onshore for appropriate reuse, recycling, or disposal. For the residual hydrocarbons and flushing fluids (hydrocarbons and chemicals inventories in flowlines and umbilicals), a number of options are being evaluated: Injection into disposal well. Processing and disposal offshore. Transport onshore for processing and disposal. The preferred option will be selected following completion of the relevant engineering studies. Permits for any proposed planned discharge will be requested from the authorising body.
Marine Growth	Any marine growth recovered will be managed and disposed of, according to regulations, at an appropriately licensed facility.
NORM/LSA Scale	Any NORM/LSA contaminated equipment will be treated by qualified professionals at a suitably licensed facility. Stabilised NORM waste will then be transported to a specialist permitted site for disposal.
Asbestos	Asbestos will be treated as hazardous waste for disposal at an appropriately licensed facility.
Other Hazardous Wastes	Any other hazardous waste streams identified will be classified accordingly for disposal at an appropriately licensed facility.
Onshore Dismantling Sites	Recycling Facilities have not yet been selected. The selection process will ensure that the respective chosen facility is able to demonstrate a proven track record of waste stream management throughout the deconstruction process and accreditation to relevant standards, as well as the ability to deliver innovative reuse/recycling options. Locations of potential recycle yards may require the consideration of transfrontier shipment of waste (TFSW), including hazardous materials. Early engagement with the regulatory authorities will ensure any issues with TFSW are addressed.

Table 3-6 – Inventory Disposition			
	Total Inventory Tonnage	Planned Tonnage to Shore	Planned left *in situ*
FPSO (including Moorings sections)	31,617	31,617	0
Dynamic Risers, Umbilical and Buoyancy Modules	364	364	0

Table 3-7 – FPSO Resale - Envisaged fate of Materials Recovered from the Decommissioning Work			
	Re-use	Recycle	Disposal
FPSO (including Moorings sections)	> 90%	< 10% [Note 1]	0%
Dynamic risers, umbilical and buoyancy modules	0%	> 90%	< 10%

[Note 1]: It is assumed that the moorings will not be re-used and instead will be recycled.

Table 3-8 – FPSO Dismantlement - Envisaged fate of Materials Recovered from the Decommissioning Work			
	Re-use	Recycle	Disposal
FPSO (including Moorings sections)	0% [Note 2]	> 90%	< 10%
Dynamic risers, umbilical and buoyancy modules	0%	> 90%	< 10%

[Note 2]: It is assumed that no FPSO equipment can be re-used, however opportunity for the reuse of individual assemblies will be evaluated as the project progresses.

It is estimated that 90% of the recovered materials from this decommissioning works could be reusable and/or recyclable. However, there are some composite materials within the flexible lines that may be difficult to separate for recycling, therefore a proportion of the plastics associated is assumed to go for disposal.

Table 3-9 summarises the atmospheric emissions and energy balance associated with the recycling of the materials recovered, as calculated in the Energy Balance Report [2]. Emissions associated with the recycling of materials recovered with DP1, amount to less than 0.007% of the total 2023 UK emissions [ref. 34] and less than 0.002% of the UK 4th carbon budget [ref.33]. It is concluded that residual effects resulting from atmospheric emissions over the short project length, associated with the energy of recycling of materials from DP1 are considered negligible.

Table 3-9 – Decommissioning Materials Disposal - Atmospheric Emissions and Energy Balance				
	Total Energy Required to Recycle (GJ)	Estimated CO2 Emissions from Recycling the Material (tonnes)	Total Energy Required to Manufacture from New (GJ)	Estimated CO2 Emissions from Manufacturing the Materials New (tonnes)
GPIII FPSO	264,217	27,383	761,764	55,164
Dynamic risers and umbilical	3,598	230	14,495	691
Buoyancy Modules	1,642	69	8,325	272
Anchor Chains	6,723	717	18,675	1,411

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4 Environmental Appraisal Overview

The decommissioning activities associated to the FPSO flushing and sailaway will have certain environmental impacts. NEO has undertaken a screening of the potential environmental impacts resulting from the proposed decommissioning activities in line with the OPRED Decommissioning Guidance Notes [Ref. 35] and undertaken a more detailed assessment for the activities documented in Section 4.2 of this DP.

NEO understands the importance of minimising environmental impacts resulting from the decommissioning activities, in addition to safety and technical feasibility requirements. These will be considered in the planning and execution of the FPSO disconnection and sailaway, with any required mitigating measures implemented where applicable.

All operations described in the DP will be subject to the relevant environmental permits and approvals, with all permit applications and reporting will be managed through a Permits, Licences, Authorisations, Notifications and Consents (PLANC) register.

As the environmental impacts identification did not indicate any significant impacts, a standalone EA has not been considered necessary to support these decommissioning activities and the environmental impacts and mitigations have been included within the body of this DP.

4.1 Environmental Sensitivities (Summary)

A summary of the environmental sensitivities identified is provided in Table *4-1* below.

Table 4-1 – Environmental Sensitivities

Environmental Receptor	Main Features
Conservation interests	▪ There are no designated sites on or within the immediate vicinity of the GPIII FPSO with the closest designated site being the Scanner Pockmark located 8.2 km to the southeast. Other nearby designated sites include the Norwegian Boundary Sediment Plain Marine Protected Area (MPA) (50 km southeast), the Central Fladen MPA (70 km northwest), and the Braemar Pockmark Special Area of Conservation (SAC) (75 km northeast) [32]. ▪ Numerous pockmarks have been found in the Block 15/20 area [Ref.8]. A closer investigation of the pockmarks has confirmed that none of them have Methane Derived Authigenic Carbonate (MDAC) [Ref.10, 28, 29, 31, 32] and therefore are not considered to be EU Annex I habitats or Priority Marine Features (PMF).

Table 4-1 – Environmental Sensitivities	
Seabed	▪ Environmental seabed surveys in the area [ref. 8, 9, 10, 28, 29, 31] indicate the area is typical of the Central North Sea (CNS). Deep circalittoral mud communities, characterised by the presence of high numbers of polychaetes (e.g., *Paramphinome jeffreysii*) as well as bivalves such as *Thyasira spp*. Epifaunal species are expected to be dominated by echinoderms (e.g., the starfish *Astropecten irregularis*) sea pens (e.g., *Virgularia mirabilis*) and burrowing crustaceans (e.g., *Nephrops norvegicus*). ▪ Mud communities as seen in Block 15/20 are of low sensitivity to sediment disturbance/burial but of medium-high sensitivity to substrate change (e.g., rock dump) [ref.16]. There are no species or habitats of conservation concern in the area impacted by this decommissioning programme.
Fish	▪ Fish populations present in the area are typical of this region of the CNS [ref.17]. Species known to spawn in the area include cod, Norway pout and *nephrops*. Other species likely to be present regarding nursery areas include whiting, Norway pout, cod, spurdog, spotted ray, *nephrops*, herring, blue whiting, ling, anglerfish, sandeels, mackerel and hake. Juveniles that may be present within the area include hake and anglerfish [ref.25]. Occasional shark species may also be present including the porbeagle. ▪ A number of fish species present are listed as Priority Marine Features (PMF) including porbeagle, anglerfish, blue whiting, cod, Norway pout, sandeel, spurdog and ling [ref.15]. The porbeagle, spurdog and cod are also listed as globally vulnerable by the International Union for Conservation of Nature (IUCN). The European populations of spurdog is also listed as endangered and porbeagle is listed as critically endangered. However, all fish present is widely distributed across the CNS and potential impacts on fish populations are not anticipated to be significant.
Fisheries	▪ The Donan, Balloch and Lochranza fields lie within International Council for the Exploration of the Sea (ICES) Rectangle 45F0. The UK fishing effort within this area varies throughout the year but annually can be considered low, representing 1.02% of the total UK fishing effort and 1.04% by value (2022 data)]. Fishing in the area is dominated by shellfish (nephrops), but landings for demersal species (e.g., haddock) and pelagic species (e.g., mackerel) are also recorded. [ref.26] ▪ Effort along the Donan, Balloch and Lochranza pipelines is dominated by the nephrops trawl, but with only low numbers of fishing tracks compared with other areas of the North Sea. [ref.18]
Marine mammals	▪ Seals (harbour seal and grey seal) may be seen in the area, but only in very low numbers [ref 20]. ▪ Cetaceans expected to be seen are the white-sided dolphin, white-beaked dolphin, minke whale and harbour porpoise [ref.21].

Table 4-1 – Environmental Sensitivities	
	Typically, numbers present are low, but occasionally higher numbers, possibly on migratory journeys, may be seen [ref.21]. Cetaceans are all European Protected Species (EPS) and PMF.
Birds	▪ Seabirds are present in variable numbers throughout the year in Block 15/20. Seabirds commonly found in the area include fulmar, storm petrel, herring gull, great black-backed gull, black-legged kittiwake, common guillemot, and razorbill. ▪ Birds found in the area that are on the JNCC Seabird Monitoring Programme [ref.19] and recognised as having a major decline in UK breeding or wintering populations include the northern fulmar (-35%), great black-backed gull (-40%) and black-legged kittiwake (-42%). ▪ The greatest sensitivity of seabirds comes from potential oil spills. Seabird sensitivity to oil pollution for Block 15/20 is low (5)-medium (4) [ref.22] for those months where data are available. The herring gull and black-legged kittiwake are both mostly aerial species and are of low vulnerability to oil spill.
Onshore communities	▪ As the location for onshore dismantling is currently unknown, baseline data cannot be provided. ▪ The selection of licensed dismantlement yard(s) and rigorous assessment based on the yard demonstrating robust waste management and disposal procedures and compliance with all permitting and legislative requirements, will ensure the impact to onshore communities and local environment are minimised.
Other users of the sea	▪ Block 15/20 lies within a well-developed oil and gas area of the CNS with many fields, supporting infrastructure and pipelines present in the area. A disused telecommunications cable is also present in the area. ▪ Block 15/20 is outside the MoD Practice and Exercise Areas (UK Hydrographic Office charts [Ref. 18]). There are no Offshore Wind Farms developments in proximity, with the closest offshore windfarm project 78 km southwest of the GPIII FPSO which is the Marram Wind project in the pre-planning phase [ref 27]. Block 15/20 lies within a current UKCS Carbon Storage licence (operated by Shell UK Limited and partnered with Pale Blue Dot Energy Limited and Chrysaor Limited) [ref. 30]. The GPIII FPSO and producing fields lie approximately 56 km northwest of two Innovation and Targeted Oil & Gas (INTOG) areas, identified as the Harbour Energy and Cerulean Winds areas [ref 27]. ▪ Shipping traffic within this area of the North Sea is moderate with < 5 ships per week [ref.23]. Much of the shipping traffic comprises of freight (container shipping) and oil and gas industry traffic (supply vessels and shuttle tankers). A shipping lane lies to the north of Block 15/20.

Table 4-1 – Environmental Sensitivities	
Atmosphere	▪ Data for the CNS show that winds can occur from any direction, although there is a tendency for winds from the south, south-west, west and north-west to be more frequent [Ref 24]. Predominant wind speeds throughout the year represent moderate to strong breezes (6 - 13 m/s), with the highest frequency of gales (>17.5 m/s) occurring during the winter months (November - March). ▪ Air quality status in the highly dispersive environment of the North Sea is generally good.

4.2 Potential Environmental Impacts and their Management

A summary of the main impacts of the decommissioning activities and management actions is provided in Table 4-2 below.

Table 4-2 – Environmental Impact Management			
Activity	**Main Impacts**	**Impact Assessment**	**Management**
FPSO Sailaway	Fuel use / Atmospheric emissions	▪ Given the localised effects on air quality and due to the location of the FPSO (222 km north-east of Aberdeen) it is not anticipated that there will be a significant impact on air quality on a wider scale ▪ Atmospheric emissions from the proposed decommissioning operations will be restricted to those from vessels and are not anticipated to have a significant impact on the climate. Estimated CO2 emissions for vessel use during the decommissioning operations are 5,449.8 Te CO2e, equating to approximately 0.04% of total UKCS emissions and 0.001 % of UK territorial gas emissions [ref. 33, 34].	▪ Minimise number of vessels deployed. ▪ Use of low Sulphur diesel ▪ Project Energy Balance Report. The FPSO topsides preparation/make safe will generate 2302.6 Te CO2e; FPSO marine preparation, tow and risers recovery will generate 3147.2 Te CO2e ▪ Compliance with NEO Marine Assurance Standard
	Hazard to Navigation	▪ The physical presence of the FPSO Sailaway may pose an obstruction or navigation hazard to other sea users (shipping and fishing vessels). Mitigation measures are in place to	▪ UKHO standard communication channels including Kingfisher, Notice to Mariners and radio navigation warnings

Table 4-2 – Environmental Impact Management			
		decrease the risk of vessel collisions.	▪ Use of Automatic Identification Systems (AIS) and other standard navigational controls ▪ Agreed passage plan and tow procedure ▪ Compliance with NEO Stakeholder Engagement Management Plan ▪ Project PLANC register to ensure relevant approvals and consents are obtained
	Disturbance of nesting seabird habitat	▪ Baseline ornithological survey confirmed that there are no nesting seabirds on the installation or evidence of attempted nesting (June 2024) ▪ The consequence on seabird populations is ranked as low.	▪ Compliance with relevant guidance e.g., "Undertaking of Seabird Survey Methods for Offshore Installations: Black-legged kittiwakes" (JNCC, 2021) ▪ Implementation of a Birds Management Plan (including routine monitoring of birds activities and implementation of a suitable deterrence strategy as recommended by the ornithologist)
Disconnection and recovery of dynamic flexible risers and umbilical	Chemical / oil discharge to sea	▪ The potential for the discharge to sea of residual chemicals is anticipated to have only a minor environmental impact. Although fish and marine mammals have medium sensitivity to the discharge of chemicals or oil, the magnitude of the impact is considered to be negligible, as rapid dilution in the water column is anticipated [Ref. 32].	▪ Appropriate Risk Assessment through the MATs/SATs (OCR) System ▪ Flushing and cleaning of the subsea system ahead of execution phase ▪ Selection of flushing chemicals with lesser potential for environmental impact

Table 4-2 – Environmental Impact Management			
	Fuel use / atmospheric emissions	▪ Given the localised effects on air quality and due to the location of the FPSO (222 km north-east of Aberdeen) it is not anticipated that there will be a significant impact on air quality on a wider scale ▪ Atmospheric emissions from the proposed decommissioning operations will be restricted to those from vessels and are not anticipated to have a significant impact on the climate. Estimated CO2 emissions for the vessel use during the decommissioning operations are 5,449.8 Te CO2e, equating to approximately 0.04% of total UKCS emissions and 0.001 % of UK territorial gas emissions [ref. 33, 34].	▪ Minimal number of vessels deployed ▪ Use of low sulphur diesel ▪ Project Energy Balance Report ▪ Compliance with NEO Marine Assurance Standard
	Seabed disturbance	▪ Recovery of the risers will result in the suspension of seabed sediment. Such disturbance will be of short duration and localised in nature. In addition, no protected habitats or species were identified during surveys in the vicinity of the proposed decommissioning operations. Overall, this means the proposed decommissioning activities will have a negligible impact (i.e. not significant) for seabed receptors [Ref. 32].	▪ Recovery of dynamic flexible risers and umbilical to minimise area of seabed impacted ▪ Potential impacts will be addressed in the Environmental Assessment Justification submitted in support of the requisite Marine Licence application
	Physical presence	▪ The physical presence of the dynamic risers and umbilical may pose an obstruction or navigation hazard to other sea users (shipping and fishing vessels).	▪ Recovery of dynamic flexible risers and umbilical to remove potential obstruction or navigation hazard to other users of the sea

Table 4-2 – Environmental Impact Management			
Cutting and partial recovery of mooring chains	Fuel use / Atmospheric emissions	▪ Given the localised effects on air quality and due to the location of the FPSO (222 km north-east of Aberdeen) it is not anticipated that there will be a significant impact on air quality on a wider scale ▪ Atmospheric emissions from the proposed decommissioning operations will be restricted to those from vessels and are not anticipated to have a significant impact on the climate. Estimated CO2 emissions for the vessel use during the decommissioning operations are 5,449.8 Te CO2e, equating to approximately 0.04% of total UKCS emissions and 0.001 % of UK territorial gas emissions [Ref. 33, 34].	▪ Minimise number of vessels deployed ▪ Use of low sulphur diesel ▪ Project Energy Balance Report ▪ Compliance with NEO Marine Assurance Standard
	Seabed disturbance:	▪ Partial recovery of the mooring chains will result in suspension of seabed sediment due to the controlled laydown and lowering of the mooring chains onto the seabed. Sections of mooring chains will be recovered with the FPSO. Therefore, such disturbance will be of short duration and localised in nature. In addition, no protected habitats or species were identified during surveys in the vicinity of the proposed decommissioning operations. Overall, this means the proposed decommissioning activities will have a negligible impact (i.e. not significant) for seabed receptors [Ref. 32].	▪ Controlled lowering and laydown of mooring chains to minimise area of seabed impacted ▪ Potential impacts will be addressed in the Environmental Assessment Justification submitted in support of the requisite Marine Licence application

Table 4-2 – Environmental Impact Management			
	Onshore waste management	▪ Potential recycling of materials and disposal of small quantities of material to landfill will be compliant with waste management strategies by applying approved and practical methods.	▪ Investigate redeployment/reuse opportunities ▪ Use of appropriately authorised waste management contractor(s) and facilities ▪ Compliance with the Waste Hierarchy ▪ Compliance with project Waste Management Plan
	Physical presence	▪ The physical presence of the partial mooring system may pose an obstruction or navigation hazard to other sea users (shipping and fishing vessels). Mitigation measures are in place to decrease the risk of vessel collisions.	▪ Stakeholder engagement – notably with Scottish Fishermen's Federation (SFF) and Northern Lighthouse Board (NLB). ▪ Controlled lowering and laydown of mooring chains within 500m zone ▪ It is acknowledged that appropriate safety measures to ensure no threat to other users of the sea will require to be agreed and deployed at the relevant time following sail away of the FPSO ▪ Potential impacts will be addressed in the Environmental Assessment Justification submitted in support of the requisite Marine Licence application
Vessels	Hazard to navigation	▪ The physical presence of the vessels used to remove the infrastructure may pose an obstruction or navigation hazard to other sea users (shipping and fishing vessels). Mitigation measures are in place to	▪ Safety zones (where/when applicable and being mindful that arrangements will change at certain stages of the project) ▪ UKHO standard communication channels including Kingfisher,

Table 4-2 – Environmental Impact Management			
		decrease the risk of vessel collisions.	Notice to Mariners and radio navigation warnings ▪ Use of Automatic Identification Systems (AIS) and other standard navigational controls ▪ Compliance with NEO Stakeholder Engagement Management Plan
	Discharge to sea	▪ The potential for drainage from the vessels is anticipated to have only a minor environmental impact. Although some species have moderate sensitivity to the discharge of chemicals or oil, the magnitude of the impact is considered to be negligible, as rapid dilution in the water column is anticipated [Ref. 32].	▪ Treatment and maceration of wastewater to IMO standards ▪ Bilge management procedures ▪ Good operating practices ▪ Vessel equipment maintained according to manufacturer's recommendations. ▪ Compliance with NEO Marine Assurance Standard
	Noise	▪ The vessels used will produce low intensity underwater noise of a continuous and intermittent nature. This will be generated from the operation of the vessel engines, propeller cavitation, thrusters and the operation of on-board machinery. However, vessel noise is not likely to be predicted above ambient noise levels. ▪ Given the nature of the proposed decommissioning activities (including no use of explosives and no piling activities) no significant impact on marine mammals is anticipated.	▪ Vessel noise is unlikely to be above ambient noise levels ▪ No use of explosives or piling
	Fuel use / Atmospheric emissions	▪ Given the localised effects on air quality and due to the location of the FPSO (222	▪ Minimal number of vessels deployed

Table 4-2 – Environmental Impact Management			
		km north-east of Aberdeen) it is not anticipated that there will be a significant impact on air quality on a wider scale ▪ Atmospheric emissions from the proposed decommissioning operations will be restricted to those from vessels and are not anticipated to have a significant impact on the climate. Estimated CO2 emissions for vessel use during the decommissioning operations are 5,449.8 Te CO2e, equating to approximately 0.04% of total UKCS emissions and 0.001 % of UK territorial gas emissions [Ref. 33, 34].	▪ Use of low sulphur diesel ▪ Vessel equipment maintained according to manufacturers' recommendations. ▪ Project Energy Balance Report ▪ Compliance with NEO Vessel Assurance process.
Waste	Use of landfill Radioactive waste / NORM	▪ Potential recycling of materials and disposal of small quantities of material to landfill will be compliant with waste management strategies by applying approved and practical methods.	▪ Detailed inventories (including IHM) ▪ Use of appropriately authorised waste management contractor(s) and facilities ▪ Compliance with the Waste Hierarchy ▪ Compliance with project Waste Management Plan ▪ Compliance with project Waste Management Targets ▪ SCAP

5 Interested Party Consultations

5.1 Consultations Summary

Table 5-1 – Stakeholder Consultation Summary		
Who	**Comment**	**Response**
Statutory Consultations		
Global Marine System Limited		Initiated pre-consultation engagement.
National Federation of Fishermen's Organization (NFFO)		Initiated pre-consultation engagement.
Scottish Fishermen's Federation (SFF)		Initiated pre-consultation engagement.
Northern Ireland Fish Producers' Organisation (NIFPO)		Initiated pre-consultation engagement.
Public		
North Sea Transition Authority (NSTA)		NEO have consulted with NSTA under Section 29 (2A)(a) of the Petroleum Act.
Informal Stakeholder Consultation		
Northern Lighthouse Board (NLB)		Initiated pre-consultation engagement.
Maritime Coastguard Agency (MCA)		Initiated pre-consultation engagement.

6 Programme Management

6.1 Project Management and Verification

A Project Management team will be appointed to manage the operations of the competent contractors selected for the decommissioning activities. Standard procedures for operational controls, hazard identification and risk management will be used. Where possible, work will be coordinated with other decommissioning operations in the area. The Management team will also be responsible to monitor and track the process of consents and the consultations required as part of this process and coordinate the work with due regard to interfaces with other operators' offshore assets and other users of the sea. Any changes in detail to the offshore Decommissioning Programmes will be discussed and agreed with OPRED.

6.2 Post-Decommissioning Debris Clearance and Verification

At the end of the decommissioning activities highlighted in this DP, the subsea infrastructure (to include riser bases, pipelines, etc.) will remain temporarily "*in situ*" while waiting for future removal, therefore it would not be possible to demonstrate a clear seabed. At completion of this programme, NEO proposes to carry out a post decommissioning "as left" survey to confirm work execution in accordance with the approved DP and inform the close out report.

After the wider infrastructure is decommissioned, as detailed in DP2, post-decommissioning pipeline and environmental surveys, as well as independent verification of the seabed state, will be carried out.

6.3 Schedule

The proposed schedule is provided in Figure 6-1 in this document. There may be unavoidable constraints (e.g., vessel/rig availability) that may be encountered while executing the decommissioning activities, therefore activity schedule windows have been included to account for this uncertainty.

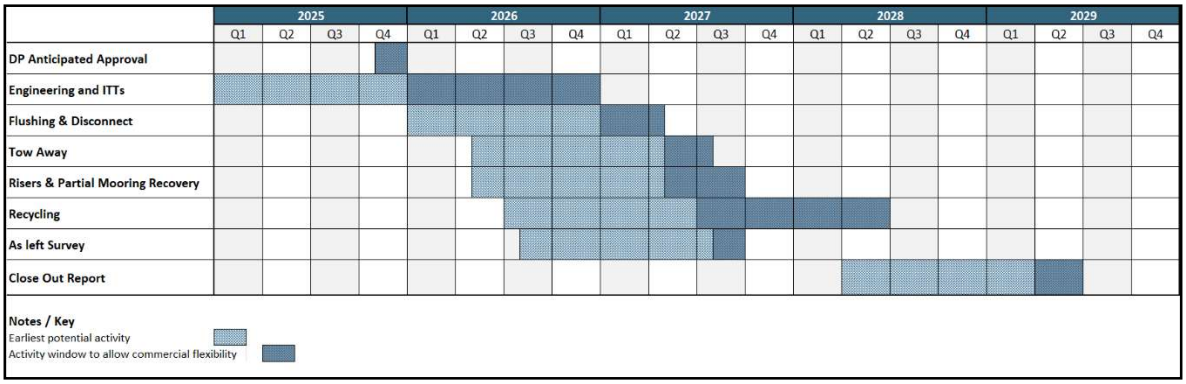

Figure 6-1 Gantt Chart of Project Schedule

6.4 Costs

Decommissioning cost estimates will be provided to OPRED separately.

6.5 Close Out

On completion of all works captured by this DP, only the FPSO, mooring chains sections, flexible risers and dynamic umbilical will be decommissioned with minimum disturbance to the seabed. Due to the reduced scope of the DP and the expected low environmental impact, the post-decommissioning survey will focus on confirming that the work executed is in accordance with the approved DP, with full seabed clearance verification carried out after completion of the separate decommissioning programme, DP2.

Subject to agreement with OPRED, findings from this survey shall be included in a close out report submitted to OPRED within one year of the completion of the GPIII FPSO decommissioning scope. The report will detail the outcomes of the survey as well as explain any major variances from the programme.

6.6 Post Decommissioning Monitoring and Evaluation

After sailaway of the FPSO has been completed, remaining mooring chains and anchors, riser and umbilical bases and associated flowlines, will remain on the seabed. These infrastructures will be decommissioned as part of decommissioning programme DP2.

It is acknowledged that, in the interim, appropriate safety measures are required to ensure no threat to other users of the sea. Prior to FPSO removal, a risk-based assessment will be undertaken to determine suitable marking of the remaining subsea infrastructure around the FPSO location. Following FPSO sailaway, the UKHO charts will be updated, and a guard vessel or alternative navigational aid options (e.g. cardinal buoys, 500m subsea safety zone) will be assessed for deployment as mitigations of hazards for other user of the sea. Acceptable mitigations will be discussed and agreed with OPRED and the other relevant stakeholders prior to FPSO sailaway.

The FPSO sailaway will also terminate the projection of a virtual AIS onto the Lochranza drill centre. Options for the reinstatement of the virtual AIS, if any available, will be assessed.

The 22 Donan, Balloch and Lochranza subsea wells will be left suspended following FPSO sailaway:

- Donan Production wells: 15/20a - D1Z, D2Z, D3, D4Z, D5, D7, D9Z, D10, D11, D12,
- Donan Water Disposal wells: 15/20a - D6(WD1), D8Z(WD2),
- Balloch Production wells: 15/20a -19X, 20X, 21
- Lochranza Production wells 15/20a - L1Y, L2, L3Z, L4
- Lochranza Exploration and Appraisal wells 15/20a - L1, L3, L5Z

As the FPSO sailaway will occur prior to the well P&A activities, all wells will continue to fall under the Well Operator's Well Integrity management scheme until they reach phase 3 well

decommissioning status. The well monitoring and inspection requirements of the Petrofac Well Integrity Standard will therefore continue to apply for the period from CoP and disconnection through to completion of well decommissioning. Schematics, showing the planned suspension status for each well will be prepared based on available information and unknowns as part of the concept design work in 2025. The level of risk associated with these unknowns may drive scope for a potential LWIV campaign. Well Integrity Testing and barrier verification will be conducted on all wells prior to CoP and remedial work conducted as required. The integrity and barrier status will be taken into consideration when determining the sequencing of the wells decommissioning programme and the frequency of the interim inspection programme. The intention will be to perform General Visual Inspections (GVI) utilising the vessels which are in field to execute other GPIII decom scopes to reduce mobilisations, emissions, and costs where possible. Active monitoring technology options will also be evaluated as part of the wells decommissioning concept selection.

An adequate well monitoring regime, between the time of sailaway to completion of the wells Plug and Abandonment (P&A), will be agreed with the HSEx and OPRED Offshore Inspectorate.

7 Supporting Documents

Table 7-1 – Supporting Documents

Ref.	Document Number	Title
1	GP3DCM-GP3-000-DM-RE-0002	Inventory Report
2	GP3DCM-GP3-000-EV-RE-0010	Energy Balance Report
3	GP3DCM-GP3-000-EV-RE-0008	Waste Management Plan
4	GP3DCM-GP3-000-EV-RE-0001	GP3 Decommissioning Birds Nesting Survey Plan
5	GP3DCM-GP3-000-PM-RE-0002	Stakeholder Engagement Management Plan
6	Weston PLANC Manager (Online)	PLANC register
7	NEO-MAR-L2-ST-00001	NEO Marine Assurance Standard
8	Gardline (2003) Ref: 6096	UKCS 15/20a Rig Site Survey – Donan Location. Survey Report. Report to Kerr-McGee North Sea UK Ltd
9	Gardline (2004) Ref: 6207.3	UKCS 15/20, 15/20a, 15/19, 15/24, 16/16, 16/17 Donan to MacCulloch and Tiffany Pipeline Route Surveys, May/June 2004. Environmental Baseline Report.
10	Fugro (2005) Ref: 68-8061	UKCS Block 15/20 (Donan). Volume 4 – Environmental Baseline Survey and Pockmark Investigation. Report to Kerr McGee North Sea UK Ltd.

Table 7-1 – Supporting Documents		
11	Gardline (2005) Ref: 6363.8 (& 6451)	Seabed Habitat Assessment Survey UKCS Block 15/20 (Dumbarton). Feb, Mar, May 2005. Habitat Assessment Report. Report to Kerr McGee North Sea (UK) Limited.
12	Natural England Commissioned Reports, Number 088 (2012)	Fletcher, S., Saunders, J., Herbert, R., Roberts, C. & Dawson, K. 2012. Description of the ecosystem services provided by broad-scale habitats and features of conservation importance that are likely to be protected by Marine Protected Areas in the Marine Conservation Zone Project area. Natural England Commissioned Reports, Number 088. Available from: http://publications.naturalengland.org.uk/file/300602
13	De-Bastos, E.S.R. 2016	De-Bastos, E.S.R. 2016. *Paramphinome jeffreysii*, *Thyasira* spp. and *Amphiura filiformis* in offshore circalittoral sandy mud. In Tyler-Walters H. and Hiscock K. (eds) Marine Life Information Network: Biology and Sensitivity Key Information Reviews. Plymouth: Marine Biological Association of the United Kingdom. [cited 19-06-2019]. Available from: Plymouth Marine Science Electronic Archive (PlyMSEA)
14	De-Bastos & Budd 2016	De-Bastos & Budd 2016. *Brissopsis lyrifera* and *Amphiura chiajei* in circalittoral mud. In Tyler-Walters H. and Hiscock K. (eds) Marine Life Information Network: Biology and Sensitivity Key Information Reviews. Plymouth: Marine Biological Association of the United Kingdom. [cited 19-06-2019]. Available from: 266983645.pdf (core.ac.uk)
15	IUCN (2024)	IUCN Red List of Threatened Species. Accessed28/05/2024 . Available at https://www.iucnredlist.org/
16	MarLIN (2023)	The Marine Life Information Network – Species List. Available at https://www.marlin.ac.uk/species
17	MCCIP Annual Report Card 2010-2011	Pinnegar, J.K., Cheung, W.W.L. and Heath, M. (2010) Fisheries. MCCIP Annual Report Card 2010-2011, MCCIP Science Review. Lowestoft, UK: MCCIP. Available from: www.mccip.org.uk/arc
18	OESEA 4 (2022)	UK Offshore Energy Strategic Environmental Assessment 4 (OESEA4) - GOV.UK (www.gov.uk)
19	JNCC (2023)	JNCC (2023) Seabird Monitoring Programme. Seabird Monitoring | JNCC - Adviser to Government on Nature Conservation
20	Carter *et al.* (2022)	Carter, M.I.D., Boehme, L., Cronin, M.A., Duck, C.D., Grecian, W.J., Hastie, G.D., Jessopp, M., Matthiopoulos, J., McConnell, B.J., Miller, D.L., Morris, C.D., Moss, S.E.W., Thompson, D., Thompson, P.M., & Russell, D.J.F. (2022) Sympatric seals, satellite tracking and protected areas: habitat-based distribution estimates for conservation and management. Frontiers in Marine Science, Vol. 9, 875869. Frontiers | Sympatric Seals, Satellite Tracking and Protected Areas: Habitat-Based Distribution Estimates for Conservation and Management (frontiersin.org)
21	JNCC (2003)	Reid, J.B., Evans, P.G.H. and Northridge S.P (2003). Atlas of Cetacean Distribution in North-West European Waters. Joint Nature Conservation Committee, Peterborough. Atlas of Cetacean distribution in north-west European waters | JNCC Resource Hub
22	HP00061701 (2016)	Webb, A., Elgie, M., Irwin, C., Pollock, C. and Barton, C. 2016. Sensitivity of offshore seabird concentrations to oil pollution around the United Kingdom: Report to Oil & Gas UK. Document No HP00061701 Sensitivity of offshore seabird concentrations to oil pollution around the United Kingdom: Report to Oil & Gas UK | JNCC Resource Hub

Table 7-1 – Supporting Documents		
23	MMO (2014) Project No: 1066 ISBN: 978-1-909452-26-8.	MMO (2014). Mapping UK Shipping Density and Routes from AIS. A report produced for the Marine Management Organisation, pp 35. MMO Project No: 1066. ISBN: 978- 1-909452-26-8. Mapping UK shipping density and routes from AIS (publishing.service.gov.uk)
24	BODC (1998)	BODC (1998). United Kingdom Digital Marine Atlas 3rd Edition. British Oceanographic Data Centre (BODC), Birkenhead.
25	Aires *et al*. (2014)	Aires, C., González-Irusta, J.M. and Watret, R. (2014) Updating Fisheries Sensitivities Maps in British Waters. Scottish Marine and Freshwater Science Report. Vol. 5, No. 10. Scottish Marine and Freshwater Science Vol 5 No 10 - Updating Fisheries Sensitivity Maps in British Waters | Marine Scotland Data Publications
26	SG-MD (2023)	SG-MD (2023) Fishing Effort and Quantity and Value of Landings by ICES Rectangle. 2022 Scottish Sea Fisheries Statistics - Fishing Effort and Quantity and Value of Landings by ICES Rectangles | Marine Scotland Data Publications
27	Crown Estate Scotland (2024)	Crown Estate Scotland (2024) Crown Estate Scotland Spatial Hub. Crown Estate Scotland Spatial Hub (arcgis.com)
28	Gardline (2020a) Ref: 11552.E02	Brodick Field Development Survey. UKCS Block 15/20. Habitat Assessment Report. 11552.E02. Gardline Limited.
29	Fugro (2009)	Debris Site Survey UKCS Block 15/20 Balloch & Dunglass Debris Survey Drilling Location. Survey Period: 16 November – 13 December 2009. Report Number: 00075V6.1. Volume 6 of 7: Environmental Baseline and Habitat Survey Results
30	NSTA Carbon Storage Licenses	Carbon Storage (nstauthority.co.uk)
31	Gardline (2020b)	Brodick Field Development Survey. UKCS Block 15/20. Environmental Baseline Survey Report. 11552. Gardline Limited
32	Orbis (2024)	GPIII Decommissioning – Survey Summary Report (Ref. P1426-04-01)
33	OEUK (2024)	Emissions Reduction Report 2024. https://oeuk.org.uk/product/emissions-reduction-report-2024/
34	DESNZ (2025)	2023 UK Greenhouse Gas Emissions. https://assets.publishing.service.gov.uk/media/67a2a5d07da1f1ac64e5feb0/2023-final-emissions-statistics-summary.pdf
35	GP3DCM-GP3-000-EV-TN-0001	GPIII Decommissioning Technical Note – Assessment of Environmental Impacts and Marine Planning (Orbis)

8 Section 29 Holders Letters of Support

Appendix A Public Notice

Appendix B Statutory Consultees Correspondence